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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,404	02/15/2001	Dolors Sala	1875.0440002	4785

26111 7590 09/08/2004

STERNE, KESSLER, GOLDSTEIN & FOX PLLC
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

HOANG, THAI D

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,404

Applicant(s)

SALA ET AL.

Examiner

Thai D Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 02/18/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 and 10 are rejected under 35 U.S.C. 102(e) as being unpatentable by Lyles et al., US Patent No. 6,563,829, hereafter referred to as Lyles.

Regarding claim 1, Lyles discloses a method and apparatus for providing integrated packet services over a shared-media network. Lyles teaches that the apparatus comprises a bandwidth allocation unit 305 (BAU) located at a head-end 105 (remote node) and a network access unit 315 (NAU) located at a customer 125 (local node). The apparatus (see fig. 4) disclosed by Lyles comprising:

The NAU sends a resource request to BAU for transmitting data; see fig. 4, 405; col. 7, 30-37; col. 8, step (a) (sending a request to transmit data related to a requesting service);

The BAU generates and sends a grant service to the NAU; see fig. 4, 410; col. 7, lines 2-19; col. 8 step (b) (receiving a grant specification from a remote node, said grant specification providing authorization to transmit data related to the requesting service)

Furthermore, Lyles teaches that a request may contain a single information element which represents an aggregation of individual queued transmission requests (e.g., a single summary request representing the request status of the collection of transmission queues at the network access unit) the request may contain multiple information elements, a batch which represents a burst size worth of requests over one or more transmission queues at the network access unit (col. 7, lines 30-37). In addition, Lyles teaches that the apparatus supports multiple quality of services (QoS) and class of services (CoS) (col. 7, lines 7-9; col. 8, lines 44-48). Therefore, it indicates that the scheduler located at NAU 315 performs the step of calculating the needs of a plurality of services that includes the requesting of the plurality of CoS and/or QoS; and then the scheduler performs the step of scheduling for transmitting plurality of CoS data packets to the head-end 105 (considering the needs of a plurality of services, said plurality of services including the requesting service and at least one other service; scheduling packets for said plurality of services in response to said considering step; and transmitting a burst based on the scheduled packets to the remote node).

Regarding claim 2, Lyles discloses a request may contain a single information element, which represents an aggregation of individual queued transmission requests; or a request may contain multiple information elements, a batch which represents a burst size worth of requests over one or more transmission queues at the network access unit. It indicates that the apparatus disclosed by Lyles inherently performs the step of evaluating the current state of queues for each of the plurality of services.

Regarding claim 3, Lyles discloses the requests can be made either in terms of a rate (e.g., "please give me 100 packets-per-second"), or in terms of a burst (e.g., "I have 20 packets queued up ready to send"). It implies that the apparatus evaluates a throughput to consider the need of the plurality of services.

Regarding claim 4, Lyles discloses that the system processes a plurality of class of services data queues. It, therefore, inherently processes data from a higher priority queue to a lower priority queue.

Regarding claims 5-8 and 10, Lyles teaches that the NAU 315 sends one or multiple bandwidth requests, which are located in slots of an upstream channel, to the BAU 305; col. 6, line 61-col. 7, line 4; col.7, lines 30-37; col. 12, lines 45-62.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles as shown above.

Regarding claim 9, Lyles does not disclose the bandwidth request is sent in the header frame. However, one of ordinary skill in the art would be able to modify Lyles's system by sending the bandwidth request in a header frame. It would have been obvious to one of ordinary skill in the art at the time the invention was made to send the request bandwidth in the header frame in order to save the bandwidth of the system.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,028,860 A, Laubach et al. discloses "Prioritized virtual connection transmissions in a packet to ATM cell cable network."

US Patent No. 6,546,017 B1, Khaunte discloses "Technique for supporting tiers of traffic priority levels in a packet-switched network."

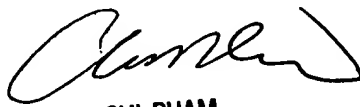
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-18:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 9/7/09